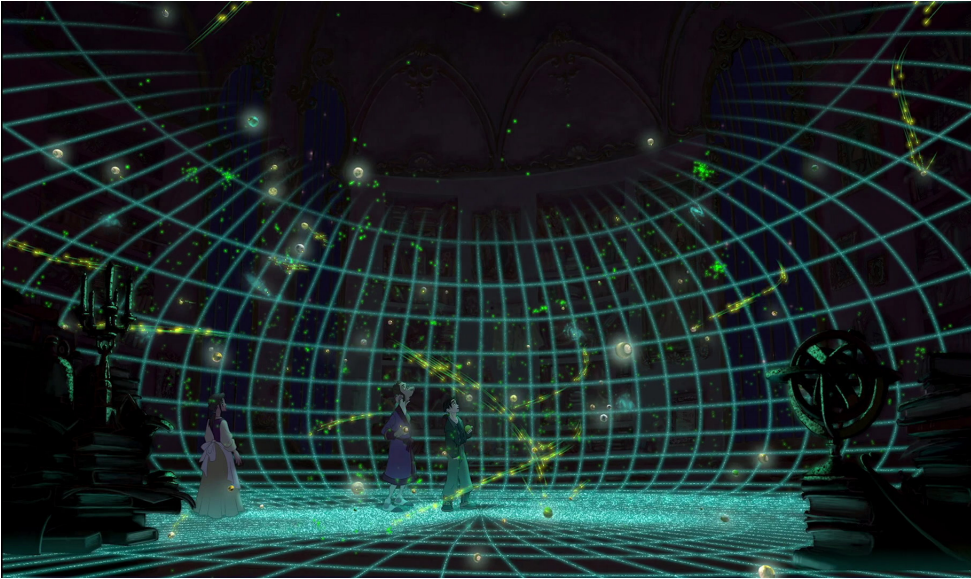# CSE 490V Final Project Proposal Template

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1 ELEVATOR PITCH

Have you ever wondered how would feel if you had the map from the treasure planet. Now inspired by galaxy explorer, we will try to create a more realistic and less green version that displays to begin with one galaxy.

2 EXTENDED OVERVIEW

Link: Video of galaxy explorer overview
Link: This is case study of creating galaxy object
We decided to start with implementing the galaxy how it is done in galaxy explorer. Our main goal is to get the stars rendered and moving as well as clouds and it's shadows. Since we are doing vr version we decided to dark night sky background.

2.1 Technical Challenges

- We need to learn unity from scratch in a week.
- We need to code up the physics behind starts, which is complicated because we never learned it before.
- We need to render movements of a lot of components.

2.2 Key Risks and Mitigations

- We don't know unity. The possible mitigation is to learn unity early and change the level of difficulty accordingly if we find it hard to code without lots of bugs.
- We don't yet know how different the details are going to be when working with a new device.

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3   HARDWARE AND SOFTWARE

- [Requested] Oculus Quest.
- [Personal] Computer.

Also list the software required to complete your project.

- [Personal] VRTK.
- [Personal] unity.

4   TEAM RESPONSIBILITIES

- **Student One**: Responsible for: (1) Rendering star, (2)star movement, (3) cloud shadows, 4) background
- **Student Two**: Responsible for: (1) Rendering clouds, (2) star movements, (3) texture.

5   DEVELOPMENT PLAN

- **Feb 28**: Start to learn unity.
- **March 10**: Complete rendering stars and movement.
- **March 15**: Complete rendering clouds and background.
- **March 19**: Complete final report and turn it in.
- **EXTRA**: If we underestimated amount of work or have extra time, we also want to change background to look like you are inside the green outlined globe like in Treasure Planet
- **EXTRA**: If we underestimated amount of work or have extra time, we also want to be able to move the galaxy around.

https://www.microsoft.com/en-us/p/galaxy-explorer/9nblggh4q4jg?activetab=pivot:overviewtab# https://docs.microsoft.com/en-us/windows/mixed-reality/galaxy-explorer